



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,271	11/13/2003	Kenichiro Naito	1761.1051	5658
21171	7590	10/31/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			KRAUSE, JUSTIN MITCHELL	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/706,271

Applicant(s)

NAITO ET AL.

Examiner

Justin Krause

Art Unit

3682

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/13/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed November 13, 2003 has been considered during examination.

Drawings

2. The drawings filed November 13, 2003 have been reviewed and are accepted as formal.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because it exceeds the maximum allowable length. Correction is required. See MPEP § 608.01(b).
5. The disclosure is objected to because of the following informalities: Page 3, Line 20 of the specification is grammatically awkward.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, line 2, "general portion of the retainer body" is unclear. The general portion requires further definition.

Claim 5, line 3, "pockets are defined are each provided" is grammatically incorrect and renders the claim unclear.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claim 1 and claim 5, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Ishiwada (US 2003/0103703).

Ishiwada shows a synthetic resin retainer for a rolling bearing having a ring shaped retainer body (30) having inner and outer peripheral surfaces opposite to each other, a plurality of pockets (32) in the retainer body spaced circumferentially for retaining ball bearings, radial sides of the inner surface of each pocket defined as spherical ball bearing surfaces where the ball contacts (40), intermediate portions of the inner surface of each pocket defined as circumferential non-contact surface areas (42) and all edges of the inner surface of each pocket which may contact the ball are chamfered (Paragraph 76).

Regarding claim 5, a pair of projections (36), embrace a ball and an inner surface of these projections defines part of the inner surface of the pocket.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiwada in view of Yamamoto (US 2003/0012471).

Ishiwada shows claimed subject matter as described above.

Ishiwada does not show oil reservoir grooves in the form of elongated recesses in a curved surface in a radial direction of the retainer, or a bottom oil reservoir groove of a concaved shape.

Yamamoto teaches a bearing retainer with lubrication grooves (10) in the form of elongated triangular recesses in a curved surface and extending in a radial direction. Bottom oil reservoir grooves (11) of a generally concave shape are also shown for the purpose of smoothly feeding lubricant into the bearing (Paragraph 38).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Ishiwada by adding oil reservoir grooves as taught by Yamamoto. The motivation would have been the ability to smoothly feed lubrication into the bearing.

12. Claim 4, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiwada in view of Hottinger (US Patent 1,252,007).

Ishiwada shows claimed subject matter as described above.

Ishiwada does not show a retainer wherein a radial thickness of a general portion is small relative to a radial thickness of the retainer body adjacent to each pocket.

Hottinger teaches a bearing cage retainer wherein a radial thickness of a general portion is small relative to a radial thickness of the retainer body adjacent to each pocket (Fig. 1) for the purpose of allowing the ability to bend the retainer pocket around the ball to confine the ball (Lines 55-59).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Ishiwada and add additional thickness to the retainer in the pocket area of the retainer around the ball as taught by Hottinger.

The motivation would have been to provide better confinement of the ball within the retainer.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4,225,199 shows a bearing retainer with lubricant grooves.

6,287,012 shows a bearing retainer with a bottom lubricant groove.

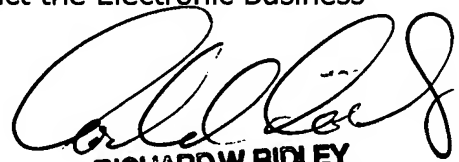
6,276,836 shows a bearing retainer with non-contact surfaces.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Krause whose telephone number is 571-272-3012. The examiner can normally be reached on Monday - Friday, 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMK
10/26/05


RICHARD W. RIDLEY
PRIMARY EXAMINER
SPE AU 3682